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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,031	10/15/2003	Mark A. Clarner	05918-339001 / VGCP NO. 6	2175
26161	7590	06/15/2005	EXAMINER RODRIGUEZ, RUTH C	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			ART UNIT 3677	PAPER NUMBER

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,031

Applicant(s)

CLARNER, MARK A.

Examiner

Ruth C Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) 58-61 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/31/03 & 3/14/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-57, drawn to a touch fastener, classified in class 24, subclass 452.
 - II. Claims 58-61, drawn to a process of forming a touch fastener, classified in class 264, subclass 167.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, a materially different process can be used to make the touch fastener.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with James W. Babineau on 29 March 2005 a provisional election was made with traverse to prosecute the invention of I, claims 1-57. Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 58-61 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

Information Disclosure Statement

3. The information disclosure statement filed 31 December 2003 and 14 March 2005 have been considered for this Office Action.

Specification

4. The disclosure is objected to because of the following informalities:

- Page 8, line 19, "the in" should be replaced with in --the--.
- Page 9, line 27, "256" should be replaced with --254--.
- Page 11, line 8, the underlined blank space should be replaced with --10/688,320--.
- Page 14, line 14, the underlined blank space should be replaced with --10/688,301--.

Correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 5, 7-16, 24, 25, 27, 29-31, 46-48, 50, 52, 56 and 57 are rejected under 35 U.S.C. 102(e) as being anticipated by Ausen et al. (US 2004/0068848 A1).

A touch fastener component has a sheet-form base (11', 11'') and an array of fastener elements (14', 14''). Each fastener element comprises a molded stem (15', 15'') and a head (17', 17''). The stem extends outwardly from and integrally with the sheet-form base (Figs. 6a-7b). The head extends forward from a distal end of the stem to a tip (Figs. 6a-7b). The head has a lower surface forming a crook that retaining loops (Figs. 6a-7b). The head has an overall height, measured perpendicular to the sheet-form base from a lowermost extent of the tip to an uppermost extent of the head, that is greater than 55 percent of an overall height of the fastener element, measured perpendicular to the sheet-form base (Figs. 6a-7b).

Each fastener element has multiple heads extending in different directions and forming separate crooks (Figs. 6a-7b).

Each fastener element has two heads extending in essentially opposite directions (Figs. 6a-7b).

Each fastener element has an overall length between opposite extents of the oppositely-directed heads, measured parallel to the base, of at least 1.8 times the overall height of the fastener element (Figs. 6a-7b).

A ratio of an overall height of the crook, measured perpendicular to the sheet-form base from a lowermost extent of the tip to an uppermost extent of the crook, to an entrance height measured perpendicular to the sheet-form base below a lowermost extent of the tip, is greater than 0.6 (Figs. 6a-7b).

The overall head height is less than 60 percent of the overall height of the fastener element (Figs. 6a-7b).

The tip extends toward the base (Figs. 6a-7b).

The lower surface of the head is arched (Figs. 6a-7b).

The head and stem form a unitary molded structure (Figs. 6a-7b).

The head has a surface of resin cooled against a mold surface (Figs. 1 and 6a-7b)

The stem has opposing surfaces (Figs. 6a-7b).

The stem and head have side surfaces lying in parallel planes (Figs. 6a-7b).

The crook overhangs a surface of the stem (Figs. 6a-7b).

The overhung stem surface extends at an inclination angle of between about 20 and 30 degrees with respect to a normal to the base (Figs. 6a-7b).

A touch fastener component has a sheet-form base (11', 11") and an array of fastener elements (14', 14"). Each fastener element comprises a molded stem (15', 15") and two head (17', 17"). The stem extends outwardly from and integrally with the sheet-

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form base (Figs. 6a-7b). The two heads extends in opposite directions from a distal end of the stem to corresponding tips (Figs. 6a-7b). The heads have lower surfaces forming crooks for retaining loops (Figs. 6a-7b). At least one head has an overall height, measured perpendicular to the sheet-form base from a lowermost extent of the tip of the head to an uppermost extent of the head, that is greater than half of an overall height of the fastener element, measured perpendicular to the sheet-form base (Figs. 6a-7b).

Both of the heads have overall heights that are greater than half of the overall height of the fastener element (Figs. 6a-7b).

The overall head height is less than 60 percent of the overall height of the fastener element (Figs. 6a-7b).

The crooks overhang surfaces of the stem. The overhung stem surfaces extend at an inclination angle of between about 20 and 30 degrees with respect to a normal to the base (Figs. 6a-7b).

A touch fastener component has a sheet-form base (11', 11") and an array of fastener elements (14', 14"). Each fastener element comprises a molded stem (15', 15") and a head (17', 17"). The stem extends outwardly from and integrally with the sheet-form base (Figs. 6a-7b). The head extends forward from a distal end of the stem to a tip (Figs. 6a-7b). The head has a lower surface forming a crook that retaining loops (Figs. 6a-7b). A ratio of an overall height of the crook, measured perpendicular to the sheet-form base from a lowermost extent of the tip to an uppermost extent of the crook, to an entrance height measured perpendicular to the sheet-form base below a lowermost extent of the tip, is greater than 0.6 (Figs. 6a-7b).

The crooks form an under crook angle of at least 180 degrees (Figs. 6a-7b).

The head has an overall thickness, measured parallel to the base and perpendicular to a plane of the crook, that is greater than the entrance height of the crook (Figs. 6a-7b).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4, 6, 16-23, 26, 28, 32-34, 49, 51, and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ausen et al.

Ausen discloses a touch fastener having all the features disclosed above for the rejection of claim 3. Ausen fails to disclose that each fastener element defines an upper well between the two oppositely-directed heads, the well extending down to a height, measured perpendicularly from the base, of at least about 70 percent of the overall height of one of the two oppositely-directed heads. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have each fastener element defines an upper well between the two oppositely-directed heads, the well extending down to a height, measured perpendicularly from the base, of at least about 70 percent of the overall height of one of the two oppositely-directed

heads since the Examiner takes Official notice that having a fastener with two crook being provided with an upper well is well known in the touch fastener art.

Ausen fails to disclose the dimensions of the fastener. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have each fastener element head tip defines an entrance height, measured perpendicular to the sheet-form base below a lowermost extent of the tip, of between about 7 and 12 millimeters for the fastener disclose by Ausen since a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). It is well known in the touch fastener art to provide the dimensions of the fasteners in accordance with the use and the required force.

Ausen fails to disclose the dimensions of the fastener. However, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have each fastener element has an overall height of between about 10 and 50 millimeters for the touch fastener disclosed by Ausen since a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). It is well known in the touch fastener art to provide the dimensions of the fasteners in accordance with the use and the required force.

Ausen fails to disclose the dimensions of the fastener. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have each fastener element has an overall height of between about 20 and 30 millimeters for the fastener disclose by Ausen since a change in the size of a prior art

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device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). It is well known in the touch fastener art to provide the dimensions of the fasteners in accordance with the use and the required force.

Ausen fails to disclose the dimensions of the fastener. However, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have each fastener element head has an overall height of between about 10 and 20 millimeters. for the touch fastener disclosed by Ausen since a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). It is well known in the touch fastener art to provide the dimensions of the fasteners in accordance with the use and the required force.

Ausen fails to disclose the dimensions of the fastener. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have fastener element crook defines an overall crook height, measured perpendicular to the sheet-form base from a lowermost extent of the tip to an uppermost extent of the crook, of at least 6.0 millimeters for the fastener disclose by Ausen since a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). It is well known in the touch fastener art to provide the dimensions of the fasteners in accordance with the use and the required force.

Ausen fails to disclose that the touch fastener component further comprises a backing material laminated to a side of the base opposite the fastener elements. However, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to have the touch fastener component further comprises a backing material laminated to a side of the base opposite the fastener elements since the Examiner takes Official notice that having a fastener with two crook being provided with an upper well is well known in the touch fastener art.

Ausen fails to disclose that the fastener elements are arranged in a density of at least 350 fastener elements per square inch of the base. However, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have the fastener elements are arranged in a density of at least 350 fastener elements per square inch of the base since the Examiner takes Official notice that having a fastener with two crook being provided with an upper well is well known in the touch fastener art.

Ausen fails to disclose that the fastener elements together cover at least 20 percent of an overall surface area of the base from which the fastener elements extend. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the fastener elements together cover at least 20 percent of an overall surface area of the base from which the fastener elements extend since the Examiner takes Official notice that having a fastener with two crook being provided with an upper well is well known in the touch fastener art.

9. Claims 35-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ausen et al. in view of Martin et al. (US 2002/0116799 A1).

Ausen discloses a touch fastener component has a sheet-form base (11', 11") and an array of fastener elements (14', 14"). Each fastener element comprises a molded stem (15', 15") and a head (17', 17"). The stem extends outwardly from and

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integrally with the sheet-form base (Figs. 6a-7b). The head extends forward in an engagement direction from a distal end of the stem to a tip (Figs. 6a-7b). The head has a lower surface forming a crook for retaining loops (Figs. 6a-7b). Ausen fails to disclose that the fastener element has a bulk aspect ratio of more than 0.020 inch (0.51mm). However, Martin teaches a touch fastener comprising a sheet-form base (26) and an array of fastener elements (24). Each fastener element comprises a molded stem and a head (Figs. 1-10a). The stem extends outwardly from and integrally with the sheet-form base (Figs. 1-10a). The head extends forward in an engagement direction from a distal end of the stem to a tip (Figs. 1-10a). The head has a lower surface forming a crook for retaining loops (Figs. 1-10a). The fastener element has a aspect ratio defined as the head area divided by the overall area of the touch fastener. This ratio is defined to determine how skin friendly is a touch fastener. A touch fastener is skin friendly when the head area is greater and this would result in a greater aspect ratio (Page 4, Paragraph 0081). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a fastener element with a bulk aspect, defined as a ratio of the product of an overall length of the fastener element, measured parallel to the sheet-form base in the engagement direction above an elevation of the tip, and fastener element thickness, measured parallel to the sheet-form base and the engagement direction at the elevation of the tip, to an overall height of the fastener element, measured perpendicular to the sheet-form base, of more than 0.020 inch (0.51 mm) since having a touch fastener with a greater head area results in a touch fastener that is skin friendly as taught by Martin. Additionally, it would have been

obvious to one having ordinary skill in the art at the time of applicant's invention have the necessary dimensions needed to obtain a bulk aspect ration of 0.020 inch for the fastener disclose by Ausen since a change in the size of a prior art device is a design consideration within the skill of the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). It is well known in the touch fastener art to provide the dimensions of the fasteners in accordance with the use and the required force.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Billarant (US 3,417,440), Thomas (US 5,586,371), Miller et al. (US 6,054,091), Kennedy et al. (US 6,248,419 B1) and Chesley et al. (US 6,579,161) are cited to show state of the art with respect to touch fasteners having some of the features being claimed by the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP § 512). The following is an example of the format the certification might take:

(Signature)


If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP § 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up

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copy of the response has been transmitted by facsimile will cause further unnecessary delays in the processing of your application, duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ruth C. Rodriguez
Patent Examiner
Art Unit 3677

rcr
June 11, 2005